CIFE

Serial Number: C9/761/466   **ENTERED**

CRF Processing Date 7/10/2001
Edited by
Verified by _____ (STIC staff)

☐ Changed a file from non-ASCII to ASCII.

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically:

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data, or ☐ other _____

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited.

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included

☐ Deleted extra, invalid, headings used by an applicant, specifically:

☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as_____

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically: _____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☑ Other: _Seqr 3, 6 - moved nucleic acid end roll up on line_ _____

_____

_____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

V1/95

BEST AVAILABLE COPY

```
                    RAW SEQUENCE LISTING              DATE: 07/10/2001
                    PATENT APPLICATION:  US/09/761,466    TIME: 17:36:08

                    Input Set : A:\Pto.amc
                    Output Set : N:\CRF3\07102001\I761466.raw

  4  <110>  APPLICANT: Lee, Ike W.
  5          Izumo, Seigo
  7  <120>  TITLE OF INVENTION: Cardiac-Cell Specific Enhancer Elements
  8          and Uses Thereof
 10  <130>  FILE REFERENCE: 01948/069002
 12  <140>  CURRENT APPLICATION NUMBER: US 09/761,466
 13  <141>  CURRENT FILING DATE: 2001-01-16
 15  <150>  PRIOR APPLICATION NUMBER: US 60/176,419
 16  <151>  PRIOR FILING DATE: 2000-01-14
 18  <160>  NUMBER OF SEQ ID NOS: 20
 20  <170>  SOFTWARE: FastSEQ for Windows Version 4.0
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 23  <211>  LENGTH: 375
 24  <212>  TYPE: DNA
 25  <213>  ORGANISM: Mus musculus
 27  <400>  SEQUENCE: 1
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 30  ctaggtccta atgcggtgg cgtctccttt gacagcggc gtttggggac aacagcgggg  180
 31  acgagagata aggtgacata ccagagcaga tttggtgcgc gcgctgatac tcctctcccg  240
 32  acaggaaacg cggagctatt taaaagaccc tatcgattac tttatctttc ctggaaagct  300
 33  tcttgcggag agacaaaaga tgttccctgc ctaaagacac aaggccacac aacggagggt  360
 34  ctgcacaggc gacgc                                                  375
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 46  <212>  TYPE: DNA
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 52  ctaggtccta atgcggtgg cgtctccttt gacagcggc gtttggggac aacagcgggg  180
 53  acgagagata aggtgacata ccagagcaga tttggtgcgc gcgctgatac tcctctcccg  240
 54  acaggaaacg cggagctatt taaaagaccc tatcgattac tttatctttc ctggaaagct  300
 55  tcttgcggag agacaaaaga tgttccctgc ctaaagacac aaggccacac aacggagggt  360
 56  ctgcacaggc gacgcacaat tcggcgcggg gaaagcaaa acacactgac gcttagagtg  420
 57  cacaaacgtg tgtgttccca gagcagctcc agagtgcag aggaacgctg gggacggcga  480
 58  ggggcaccca cagtatggtc ttctgtgccc ttggaagtt ttttttccacc gtatgcgcgt  540
 59  aaaacacgca cacacagaga aagtgactgt gcacttaggg cgacctgtgtg tacccgtgtc  600
 60  gttttagcga atttaaagca catcaggccg ggcgccatag ctcacgcctg taatcccagc  660
 61  actttaggag gccgaggcg gccgatcacc tgaggtcag atttagacac cagcctggcc  720
 62  aacatggtga aacccctgtct ctacaaaaaa tacaaaaatt agccggcat ggtgatgcgt  780
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                    RAW SEQUENCE LISTING              DATE:
                    PATENT APPLICATION:  US/09/761,466  TIME:

                    Input Set : A:\Pto.amc
                    Output Set: N:\CRF3\07102001\I761466.raw
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66  gcggttactg  .                                                 1920
67  atgctccttt  .                                                 1972
69  <210> SEQ ID NO: 4
70  <211> LENGTH: 2638
71  <212> TYPE: DNA
72  <213> ORGANISM: Homo sapiens
74  <220> FEATURE:
75  <221> NAME/KEY: misc_feature
76  <222> LOCATION: (1)...(2638)
77  <223> OTHER INFORMATION: n = A,T,C or G
79  <400> SEQUENCE: 4
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82  gctgaggtgg  gaggatcact  tgagcctgga  aagtagaggc  tgcagtgage  cgtgatcaca   180
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84  aatgattaaa  ataactaaaa  ctaattttat  gtatttttta  cctttgtattt  tgtaaagatt   300
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94  agccaaaaat  aggtgctata  tcattaagag  agtaaatatt  caaaccacag  acagggtgac   900
95  attattcaca  ataagcatat  aacccacagg  ggacttctat  ctgcatatgc  aaagcaactct   960
96  cactaatcaa  taagaaaaag  gtaaaagatt  taaaacaggca  cttcacaaag  aaagtatatt  1020
97  caaaaaatca  ataacattt  gaaaagatcc  tcaaattaact  agttattagg  gaaaggtgaa  1080
98  ataaaaccac  aatgagacac  ccccacgccc  ccaaggaac  ggcttaaaat  ctaaaacatg  1140
99  taataccgaa  tgtttgcaag  gatgcggaa  gatgcctatt  tttgtacact  gccagtatga  1200
100 gggtaaaatct  gtacaaccag  gttggaaaac  gctgatgaja  atgtactcta  gctggattg  1260
101 tgaatatcat  atgatccagc  aattctactc  ctagaaattt  acccaacaga  aatgtgtaaa  1320
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103 caaaaactgg  aaactaccca  aatgtccatc  aaaagagaat  agctgaaagc  agtagcatct  1440
104 tcacataatg  aaatgtttct  acagcaatga  aaagtagata  gctgtaacta  caaacaat-t  1500
105 gattgaacct  cacaaacata  tactaactaa  aatgttgta  tacaaaaag  atatgactg  1560
106 tatttagata  catgtgaagt  ctgaaaacag  gaaatctat  tgtttgtta  gaagtgcatg  1620
107 tagttactgc  cttgccggga  aacagaactc  aaaatgattt  agtagttact  ggtgatgttc  1680
108 tgcttcctga  actgcatget  agtgaggcag  ctgttatttt  gtgcagtgct  gtgttaaact  1740
109 ggagttaaaa  gttctcccaa  aatcagaaag  tgtttgtgta  gtgtgatgaa  gtaaattgtt  1800
110 ggacttggct  gggacttaa  ggatcccat  aattttgagt  aaagacaaage  aaacaccget  1860
111 ttcttgccnt  aagtagcatc  tcccagagtc  aggatccagg  aatggtttgg  caggcaggat  1920
112 gcaaggcagg  gttggggat  ggctgagagt  ttctgaagg  tggagtctagt  gggaatggtg  1980
113 tctcccactt  ctaataaat  ggaagtacag  cttctttttg  aaaagaacc  tggttggtta  2040
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W--> 111

RAW SEQUENCE LISTING   DATE: 07/12/2001
PATENT APPLICATION: US/09/761,466   TIME: 17:36:08

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Output Set : N:\CRF3\07102001\I761466.raw

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117  gagtagccct  actcaaggtt  ccctttgctt  aatttttgtt  attcaagtc  tttatttatt  2280
118  aggagagtca  tttcaaggtc  tacccaggat  ttattactta  tgttaccata  gttctcatcg  2340
119  aggcaggaga  catggccgtt  caagtattct  ttggttgttg  tccctttgtt  2400
120  gttcttctat  tttctgata  gtcacaggta  aatatctca  ttcttttcc  aaataacat  2460
121  tagttctcct  tcttctacca  gcaacctttg  gttattgct  ctttttcaaat  ttcattatttt  2520
122  tttttttttt  taactaaggt  tgtttaactg  tcttttcata  ttt  ttatggat  gtaagcctta  2580
123  aaccaagggt  ttaataatt  agaagaaja  tgatttttt  aaatctcctt  aaggaggt  2640
124  atgtttttcc  ctatttact  tttctacagt  aattttttt  ttggtaaca  aaacctgt  2700
125  aaatgagaac  ccaacctttc  ccaaggcag  gttgtgttt  tgttggttg  cctcgtcg  2760
126  caqttggagt  aatacagagt  gatcccgggt  aagttgaatt  ggggtaaatc  tgtgttaaat  2820
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132  ctgcctgcag  atgggggat  gttggcaa  gga tgttgt  gctagggtg  gccaaggatt  3180
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137  ggaggattcg  ctccaacta  gcctgtaaca  aagtttttt  attttcgtcg  ttaagaaaaa  3480
138  aaaaaaaaag  gaagccctcc  gggagagaca  tgcgccctaa  tatttctccc  agatgggccg  3540
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143  tgacataccg  gagagatt  ggtgcgcgc  ctataacto  tctcccgaca  ggtaacgcgt  3840
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149  acagagaaag  tgactgtgca  cttaggtcgc  ctgtgtgtat  cctgtcgtt  ttacgaatt  4200
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156  gttgtaatgt  atcatagcaa  acaggtctaa  aataqtaaag  ctcattgtg  ctcttttttaa  4620
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158  cctttctagt  gcgctggttt  tgttctgtta  tcttttgtt  ttcaatttt  gtttggattg  4740
159  cagaacgccc  tccgcgaaag  gcggctgcatc  atcccactt  tgctccgta  tcagcctgtg  4800
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161  gccgaattat  actgagactga  atgtgtttttt  ttttttg tg  tgtgaaacac  aaagattttt  4920
162  cagctgctgt  tcaaatatg  ctccccaga  cactaaaac  ttactgcgg  taaacacag  4980
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RAW SEQUENCE LISTING                    DATE: 07/10/2001
PATENT APPLICATION:  US/09/761,466      TIME: 14:36:08

Input Set : A:\Pto.amc
Output Set: N:\CRF3\07102001\I761466.raw
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166 ccggtgttat ...                                      5220
167 cgcaapcgct ...                                      5280
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169 tccccggct  ...                                      5400
170 ttcactgtat ...                                      5460
171 acctccagcg ...                                      5520
172 gcccgttttg ...                                      5550
173 accagcccca ...                                      5640
174 tgaaagcgac ...                                      5700
175 ggatcatatc ...                                      5760
176 gaaaactgac ...                                      5820
177 cgtaattgct ...                                      5880
178 caaaaaaaaa ...                                      5940
179 gggattagct ...                                      6000
180 ttgattatgg ...                                      6060
181 actttgttc  ...                                      6120
182 taacagcttt ...                                      6180
183 ttaggcatgt ...                                      6240
184 atcattagca ...                                      6300
185 ggaacaagag ...                                      6360
186 ctcataaaat ...                                      6420
187 tgtgtttaac ...                                      6480
188 gtgtggctgt ...                                      6540
189 gctccctga  ...                                      6600
190 gtggtggcgg ...                                      6660
191 ggcggatgag ...                                      6720
192 tgccaccgtt ...                                      6780
193 ccccaccgtg ...                                      6840
194 ccagacagga ...                                      6900
195 ggctatttca ...                                      6960
196 aggccagg99 ...                                      7020
197 ccgggtgggg ...                                      7080
198 aggacccagg ...                                      7140
199 atacctgccc ...                                      7200
200 gagagatctt ...                                      7260
201 ggccaccctt ...                                      7320
202 ccaagggctc ...                                      7380
203 gtctcaaacc ...                                      7440
204 atctgcattt ...                                      7500
205 agtaacaagg ...                                      7560
206 tgcccccaa  ...                                      7620
207 tatgtgtaca ...                                      7680
208 atctcaaaac ...                                      7740
209 gggatctgtt ...                                      7800
W--> 210 ttacatgttg atcttaaaaa ataaaaacgg ntgaaann      7838
    212 <210> SEQ ID NO: 4
    213 <211> LENGTH: 6751
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                    RAW SEQUENCE LISTING              DATE: 07/10/2001
                    PATENT APPLICATION: US/09/761,466  TIME: 17:36:08

                    Input Set : A:\Pto.amc
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      214 <212> TYPE: DNA
      215 <213> ORGANISM: Homo sapiens
      217 <220> FEATURE:
      218 <221> NAME/KEY: misc_feature
      219 <222> LOCATION: (1)...(6761)
      220 <223> OTHER INFORMATION: n = A,T,C or G
      222 <400> SEQUENCE: 5
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     225 ccaattttta ttttgcacgt atttgtccgt ttttgcccra tctcctctct cctgaaacac         180
     226 caagcacttt ttggaagcca agagaaatca ttacogatt cauaaagagc atagagagtg         240
     227 taacagtcac tgatcttgtt caaataggga gagttttttt tccttccctt tttgtaacac         300
     228 ctgacccaca ggactgacag ttctaggaag ccccttacc cgaaaatagg aaataaaatc         360
     229 ttgccacctt gatttgcaag ggcaatgcta attttttet ttetccagag ctctcaaaaa         420
     230 aaaaaaaaaa aaaaccttac taaaaacagg gatccgggat gtagcctcga tgtcccccat         480
     231 taaacggtaa tatttcaggc gtccgctcac actaatcttt caaactgtca tcgcgagcng         540
     232 cctggccagc agattcactt aacagcgctc ccaggacct cgttccgagc tctttttcagc         600
     233 gagacattta attgaatcgg atgtggctcg tttgccagac gtcaccgcct cggcgatagg         660
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W--> 235 gggccccca agtaggttaa tttacaacca taacggtaac gtggccaaaa gncaggcgag         780
     236 gaagggccgc aaggccgctg acatgcaagc tccgtccaag aagaatttgg gttggaggrg         840
W--> 237 aagaggtggg gggacgaggt ttcntgggcc ttgaacgccc cacatttaaa aaaggcatcc         900
     238 tccacagact agactaacaa ttccagacco ccagtagtcc ctggctcaga aactcgaggc         960
     239 gtgatttcgg cgtggcagcc caggcctgtt actgacggct ggcgcctaga agccgggtc        1020
     240 agggcgttgc gcgcctcctg ggctgccctg cggggctcac ctctctcccc tttgtaacac        1080
     241 cccaggtcc tgggagtgtg gctttgatga gggaaagaa aagtcccaac atcagcaa          1140
     242 tgcttgactt cacttgcgtc ggcgtctcag acggcagact gtcgggtttg agcacccaau        1200
     243 atgtacgttc tggaagaca ctattttgtc ccataacag gacgtttcc tccgcacctt          1260
     244 gggcgcgcct gcgggagctg tgtcttaqg tagttttqg ccctgcgccg cctttattct          1320
     245 actccaagcg ctctttgcca aaccqgcact ccgcaaagag ccaagcctc caatccccca          1380
     246 ttctcagcaa gtccacgcgt cccgccage ttccgcrcg cggttcctg taccagctag          1440
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     248 gtccttaacc tgggcccgct ctgcctgccc ggactcctga attgtaagca aaataaaact         1560
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     250 gagtgcgggg accagagaa atgaggccac ccgggcagga tctgccatg tagctggcgc          1680
     251 tcctgaaact ctggcagatt tgtctgactt ctgtgccta ctctactgac cgtggctaa          1740
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     253 gggtgcccca ctggaagtcc ggccagagg cctcagagaa atcctggcct agctgggctc         1860
     254 agaggagccc cgcctccctg aaaqctaaac acctgaaac uccetgaaac ctcaaqgttg         1920
     255 gcagaagcct gagggcttg ctgccaggca gggaqgdcac gggaaggagg gagqtgggat         1980
     256 cgatggcctc aacacagggg aaacaagggt gctgqtqqct gggcaatcc acaagacaqg         2040
W--> 257 tgtntcctgg gaagctgagc ttaccagctg ggattcctga tttatttcat tattaagggg         2100
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     259 cataacacta ctgtaqgagg cagcaactgc tacaacact gqccatcact caccttgccc         2220
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     261 caagccaaac caaaccccg aattgtccag aattttcgcc ctqgtqtatc cccaaaqccc         2340
W--> 262 agccctgtct ttnagggttt ttttcctatt gagattttcc ctcatccac caccttagt          2400
     263 aataaagcct tcctcaaact aatttcctcc ccacqcttc ccaccccate ctttttttt          2460
     264 cccatgctgg tttgggtgct gaggaatatt tttttarc caracccatc cagccctgcc          2520
```

```
                    VERIFICATION SUMMARY                DATE:
                    PATENT APPLICATION:  US/09/761,466  TIME:

                    Input Set : A:\Pto.amc
                    Output Set: N:\CRF3\07102001\I761466.raw

L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:
```

OIPE

```
 4 <110> APPLICANT: Lee, Ike W.
 5            Izumo, Seigo
 7 <120> TITLE OF INVENTION: Cardiac-Cell Specific Enhancer Elements
 8            and Uses Thereof
10 <130> FILE REFERENCE: 01948/069002
12 <140> CURRENT APPLICATION NUMBER: US 09/761,466
13 <141> CURRENT FILING DATE: 2001-01-16
15 <150> PRIOR APPLICATION NUMBER: US 60/176,419
16 <151> PRIOR FILING DATE: 2000-01-14
18 <160> NUMBER OF SEQ ID NOS: 20
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
```

ERRORED SEQUENCES

```
      22 <210> SEQ ID NO: 1
      23 <211> LENGTH: 375
      24 <212> TYPE: DNA
      25 <213> ORGANISM: Mus musculus
      27 <400> SEQUENCE: 1
E--> 28 aggcccccg caccctcatc ctggctcccg cccctttctct ccaccctccc ggaccctaa
W--> 29 60agggggcggcg gggcccaagc cgagggggct gcgcctgacc ccgagcggaa gggccccagt
W--> 30 120ctaggtcccta atgcgggtgg cgtctccttt gacaggcggc gtttggggac aacagcgggg
W--> 31 180acgagagata aggtgacata ccagagcaga tttggtgcgc gcgctgatac tcctctcccg
W--> 32 240acaggaaacg cggagctatt taaaagaccc tatcgattac tttatctttc ctggaaagct
W--> 33 300tcttgcggag agacaaaaga tgttccctgc ctaaagacac aaggccacac aacggagggt
E--> 34 360ctgcacaggc gacgc                                                    375
      44 <210> SEQ ID NO: 3
      45 <211> LENGTH: 1072
      46 <212> TYPE: DNA
      47 <213> ORGANISM: Homo sapiens
      49 <400> SEQUENCE: 3
E--> 50 aggcccccg caccctcatc ctggctcccg cccctttctct ccaccctccc ggaccctaa
W--> 51 60agggggcggcg gggcccaagc cgagggggct gcgcctgacc ccgagcggaa gggccccagt
W--> 52 120ctaggtcccta atgcgggtgg cgtctccttt gacaggcggc gtttggggac aacagcgggg
W--> 53 180acgagagata aggtgacata ccagagcaga tttggtgcgc gcgctgatac tcctctcccg
W--> 54 240acaggaaacg cggagctatt taaaagaccc tatcgattac tttatctttc ctggaaagct
W--> 55 300tcttgcggag agacaaaaga tgttccctgc ctaaagacac aaggccacac aacggagggt
W--> 56 360ctgcacaggc gacgcacaat tcggcgcggg gaaagcaaaa acacactgac gcttagagtg
W--> 57 420cacaaacgtg tgtgttccca gagcagctcc agagtgcggc agggacgctg ggggcggcga
W--> 58 480ggggcaccca cagtatggtc ttctgtgcct ttggaaagtt tttttttcacc gtatgcgcgt
W--> 59 540aaaaacacgca cacacagaga aagtgactgt gcacttaggg cgcctgtgtg tacccgtgtc
W--> 60 600gttttagcga atttaaagca catcaggccg ggcgccatgg ttcacgctg taatcccagc
W--> 61 660actttaggag gccgaggcgg gccgatcacc tgaggtcggg agttcgacac cagcctggcc
W--> 62 720aacatggtga aaccctgtct ctacaaaaaa tacaaaaatt agccgggcat ggtgatgcgt
W--> 63 780gcctgtgatc ccagctactc gggaggctga ggcaggagaa tcgcttgaac ccgggaggcg
W--> 64 840gaggttgcag tgagccgaga tcacaccact gcactccagc ctgggcgaca agagcgaaat
```

```
                    RAW SEQUENCE LISTING                 DATE: 06/2 /2001
                    PATENT APPLICATION:  US/09/761,466   TIME: 16:21:24

                    Input Set : A:\PTO.txt
                    Output Set: N:\CRF3\06212001\I761466.raw

W--> 65 900tccgtctaaa aaaataaaat aaaataaaat gataattaag cccatcaact cacattcaaa
W--> 66 960gcggttactg gtggttgtaa tgtatccata gacacaggtc taaaatgtaa acgctccatt
E--> 67 1020gtgctccttt taagggcttg aatgtctgca actgtcatgt gtacacttaa ag                1072
        337 <210> SEQ ID NO: 6
        338 <211> LENGTH: 478
        339 <212> TYPE: DNA
        340 <213> ORGANISM: Homo sapiens
        342 <400> SEQUENCE: 6
E--> 343 agagaaatca ttacccgatt cacaaagagc atagagagtg taacagtcac tgatcttgtt
W--> 344 60caaaatggga gagttttttt tccttccctt tttgtaacac ctgacccaca ggactgacag
W--> 345 120ttctaggaag cccccttacc cgaaaatagg aaataaatcc ttgccacctt gatttgcaag
W--> 346 180ggcaatgcta atttttttct ttctccagag ctctcaaaaa aaaaaaaaaa aaaaccttac
W--> 347 240taaaaacagg gatcccggat gtagcctcga tgtcccccat taaacggtaa tatttcaggc
W--> 348 300gtccgctcac actaatcttt caaactgtca tcgcgagccg cctggccagc agattcactt
W--> 349 360aacagcgctc ccaggaccct cgttccgagc tcttttcagc gagacattta attgaatcgg
E--> 350 420atgtggctcg tttgccagac gtcaccgcct cggcgatagg catcctctcc aacgacac        478
```

VERIFICATION SUMMARY   DATE: 06/21/2001
PATENT APPLICATION: US/09/761,466   TIME: 16:24:26

Input Set : A:\PTO.txt
Output Set: N:\CRF3\06212001\I761466.raw

L:28 M:254 E: No. of Bases conflict LENGTH:Input:0 Counted:60 Seq:1
L:29 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:30 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:30 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:31 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:31 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:32 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:32 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:33 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:33 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:34 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
M:254 Repeated in SeqNo=1
L:34 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:3
L:34 M:252 E: No. of Seq. differs, <211>LENGTH:Input:375 Found:75 SEQ:1
L:50 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:3
L:51 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:52 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:52 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:53 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:53 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:54 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:54 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:55 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:55 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:56 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:56 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:57 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:57 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:58 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:58 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:59 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:59 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:60 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:60 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:61 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:61 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:62 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:62 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:63 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:63 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:64 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:64 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:65 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:65 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:66 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:66 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:67 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
M:254 Repeated in SeqNo=3

```
VERIFICATION SUMMARY                    DATE: 06/21/2001
PATENT APPLICATION:  US/09/761,466      TIME: 16:24:26

Input Set : A:\PTO.txt
Output Set: N:\CRF3\06212001\I761466.raw

L:67  M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:4
L:67  M:252 E: No. of Seq. differs, <211>LENGTH:Input:1072 Found:112 SEQ:3
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:343 M:254 F: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:6
L:344 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:345 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
L:345 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:346 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
L:346 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:347 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
L:347 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:348 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
L:348 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:349 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
L:349 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:350 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
M:254 Repeated in SeqNo=6
L:350 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:3
L:350 M:252 E: No. of Seq. differs, <211>LENGTH:Input:478 Found:118 SEQ:6
```